

# PATENT COOPERATION TREATY

From the  
INTERNATIONAL SEARCHING AUTHORITY

To:

see form PCT/ISA/220

## PCT

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY  
(PCT Rule 43bis.1)

Date of mailing  
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference  
see form PCT/ISA/220

**FOR FURTHER ACTION**  
See paragraph 2 below

International application No.  
PCT/DK2005/000126

International filing date (day/month/year)  
24.02.2005

Priority date (day/month/year)  
24.02.2004

International Patent Classification (IPC) or both national classification and IPC  
C12N1/00, C12N1/04

Applicant  
CHR. HANSEN AS

**1. This opinion contains indications relating to the following items:**

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☒ Box No. VIII Certain observations on the international application

**2. FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

**3. For further details, see notes to Form PCT/ISA/220.**

Name and mailing address of the ISA:



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**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

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**Box No. I Basis of the opinion**

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1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
  - ☐ This opinion has been established on the basis of a translation from the original language into the following language , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
  - a. type of material:
    - ☐ a sequence listing
    - ☐ table(s) related to the sequence listing
  - b. format of material:
    - ☐ in written format
    - ☐ in computer readable form
  - c. time of filing/furnishing:
    - ☐ contained in the international application as filed.
    - ☐ filed together with the international application in computer readable form.
    - ☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

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**Box No. V Reasoned statement under Rule 43b/s.1(a)(I) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

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**1. Statement**

Novelty (N)	Yes: Claims	7-8
	No: Claims	1-6, 9, 10
Inventive step (IS)	Yes: Claims	7-8
	No: Claims	1-6, 9, 10
Industrial applicability (IA)	Yes: Claims	1-10
	No: Claims	-

**2. Citations and explanations**

**see separate sheet**

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**Box No. VIII Certain observations on the international application**

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The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

**see separate sheet**

**1. Section V**

The following documents are referred to in this communication, the numbering will be adhered to in the rest of the procedure:

D1: WO 00 39281 A (HANSENS LAB ;KRAGELUND LENE (DK); KRINGELUM  
BOERGE (DK)) 6 July 2000 (2000-07-06)

D2: US-A-4 140 800 (KLINE LEO) 20 February 1979 (1979-02-20)

**1.1 Article 33(2) PCT**

**1.2 Document D1 discloses liquid starter cultures R-604 comprising mesophyllic *L. lactis* strains, which are unable to utilize sucrose, and their storage at -20C in the presence of different additives like sucrose and trehalose (see example 4, Table 4.1 and page 25). The only technical feature that distinguishes the bacterial culture of D1 from the culture of the present application is that when stored at lower temperatures it appears pellet-frozen. Yet, this remains exactly the same bacterial culture. It is noted that the examining division considers a bacterial culture as being the same regardless the temperature at it is occasionally stored. Therefore, the subject matter of present claims 1-6, 9-10 is not novel (Article 33(2) PCT).**

**1.3 Document D2 relates to cultures of e.g. the mesophyllic *L. sanfrancisco* which are frozen using additives like sucrose and maltose prior of being dried (see columns 13-14 and examples 17 and 19). Thus, D2 implicitly anticipates the subject matter of present claims 1-6, 9-10 (Article 33(2) PCT).**

**1.4 Applicant attention is drawn to the fact that the mere elucidation of certain parameters of a known from the prior art product **is not deemed sufficient** to reinstate novelty of said product (Article 33(2) PCT).**

**2. Section VIII**

**2.1 Present claim 1 attempts to define the subject matter for which protection is sought**

only by reciting the problem to be solved, namely the provision of non-sticking pellets of lactic acid bacteria that are unable to utilize sucrose. Without a reference to the additives claims 1-5, 7-10 are unclear. (Article 6 PCT).

- 2.2 The product of present claim 9 is defined in terms of a process of a manufacture. Such claims may be admissible only in case the products as such fulfil the requirements for patentability i.e. inter alia they are novel and inventive. In present claim 9 the scope for which protection is sought is so broad that even novelty cannot be assessed.

3. Minor objections

On page 10 line 20, page 11 line 15, page 12 lines 19-26 and page 13 first paragraph of the specification it is stated that presently claimed bacterial culture may contain sucrose-utilizing strains. This is inconsistent with the subject matter of present set of claims which require that strains are not able to utilize sucrose (Article 5/6 PCT).